- *INSTRUCTION MANUAL*
- *MANUAL DE INSTRUCCIONES*
- *MODE D'EMPLOI*
- *BEDIENUNGSANLEITUNG*
- *ISTRUZIONI PER L'USO*
- *MANUAL DE INSTRUÇÕES*
- *ΕΓΧΕΙΡΙΔΙΟ ΟΔΗΓΙΩΝ*

| | |
|---|---|
| **Inverter-Controlled Split System Air Conditioner** | **EG** |
| **Acondicionador de aire de dos unidades controlado por invertidor** | **ES** |
| **Climatiseur de type séparé contrôlé par inverseur** | **F** |
| **Splitsystem-Klimagerät mit Inverter-Steuerung** | **D** |
| **Condizionatore d'aria con sistema separato controllato dall'invertitore** | **I** |
| **Aparelho de ar condicionado do sistema split com inversor controlado** | **P** |
| **Κλιματιστικό συστήματος χωρισμού και ελεγχόμενο από αντιστροφέα** | **GR** |

# SAP-KRV93EH
# SAP-KRV123EH

**This air conditioner uses the new refrigerant R410A.**

**COOL/DRY/HEAT Model**

**Save These Instructions!**
**Guarde estas instrucciones**
**Conserver ce mode d'emploi**
**Bewahren Sie bitte diese Bedienungsanleitung auf.**
**Conservate queste istruzioni**
**Guarde estas instruções**
**Φυλάξτε τις οδηγίες αυτές**

Pub. OI-85264180671000

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**SANYO Electric Co., Ltd.**
Osaka, Japan

# Features

This air conditioner is an inverter type unit that automatically adjusts capacity as appropriate. Details on these functions are provided below; refer to these descriptions when using the air conditioner.

- **Microprocessor Controlled Operation**
  The interior compartment of the remote control unit contains several features to facilitate automatic operation, easy logically displayed for easy use.

- **Simple One-touch Wireless Remote Control**
  The remote control unit has several features to facilitate automatic operation.

- **24-Hour ON or OFF Timer**
  This timer can be set to automatically turn the unit on or off at any time within a 24 hour period.

- **1-Hour OFF Timer**
  This timer can be set to automatically turn off the unit at any time after one hour.

- **Night Setback**
  Pressing this button changes the setting of the room temperature thermostat, allowing you to set the temperature at whatever level that you find comfortable.

- **Automatic and 3-step Fan Speed**
  Auto/High/Medium/Low

- **Air Sweep Control**
  This function moves a flap up and down in the air outlet, directing air in a sweeping motion around the room and providing comfort in every corner.

- **Auto. Flap Control**
  This automatically sets the flap to the optimum position during heating, cooling, and drying operation.

- **Automatic Switching between Cooling and Heating**
  This unit automatically switches between cooling operation and heating operation according to the difference between the room temperature and the temperature setting.

- **Hot Start Heating System**
  Right from the start, the air is warm and comfortable. This system prevents any cold blasts at the beginning while the heat pump is warming up, or even defrosting.

- **Automatic Restart Function for Power Failure**
  Even when power failure occurs, preset programmed operation can be reactivated once power resumes.

- **High Power Operation**
  If not in Auto Operation, the unit operates at maximum output for 30 minutes, regardless of the desired temperature.
  The fan speed is 1 step above “High”.

- **Quiet Operation**
  The fan rotates slower than the fan speed setting to provide a quieter operating sound.

- **Anti-Mold Filter**
  This unit is equipped with an anti-mold filter that inhibits the growth of mold and bacteria.

- **Air Clean Filter**
  An air filter that eliminates unpleasant odors and cleans the air is available.

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EG

# Product Information

If you have problems or questions concerning your Air Conditioner, you will need the following information. Model and serial numbers are on the nameplate on the bottom of the cabinet.

Model No. _____ Serial No. _____

Date of purchase _____

Dealer's address _____

Phone number _____

**DECLARATION OF CONFORMITY**

This product is marked « CE » as it satisfies EEC Directive No. 89/336/ EEC, 73/23/EEC, 93/68/EEC and 92/31/EEC.

This declaration will become void in case of mis-usage and/or from non observance though partial of Manufacturer's installation and/or operating instructions.

# Alert Symbols

**The following symbols used in this manual, alert you to potentially dangerous conditions to users, service personnel or the appliance:**

**This symbol refers to a hazard or unsafe practice which can result in severe personal injury or death.**

**This symbol refers to a hazard or unsafe practice which can result in personal injury or product or property damage.**

# Installation Location

- **We recommend that this air conditioner be installed properly by qualified installation technicians in accordance with the Installation Instructions provided with the unit.**
- Before installation, check that the voltage of the electric supply in your home or office is the same as the voltage shown on the nameplate.

**WARNING**

- **Do not install this air conditioner where there are fumes or flammable gases, or in an extremely humid space such as a greenhouse.**
- **Do not install the air conditioner where excessively high heat-generating objects are placed.**

**Avoid:** To protect the air conditioner from heavy corrosion, avoid installing the outdoor unit where salty sea water can splash directly onto it or in sulphurous air near a spa.

# Electrical Requirements

1. All wiring must conform to the local electrical codes. Consult your dealer or a qualified electrician for details.
2. Each unit must be properly grounded with a ground (or earth) wire or through the supply wiring.
3. Wiring must be done by a qualified electrician.

# Safety Instructions

- **Read this Instruction Manual carefully before using this air conditioner. If you still have any difficulties or problems, consult your dealer for help.**
- **This air conditioner is designed to give you comfortable room conditions. Use this only for its intended purpose as described in this Instruction Manual.**

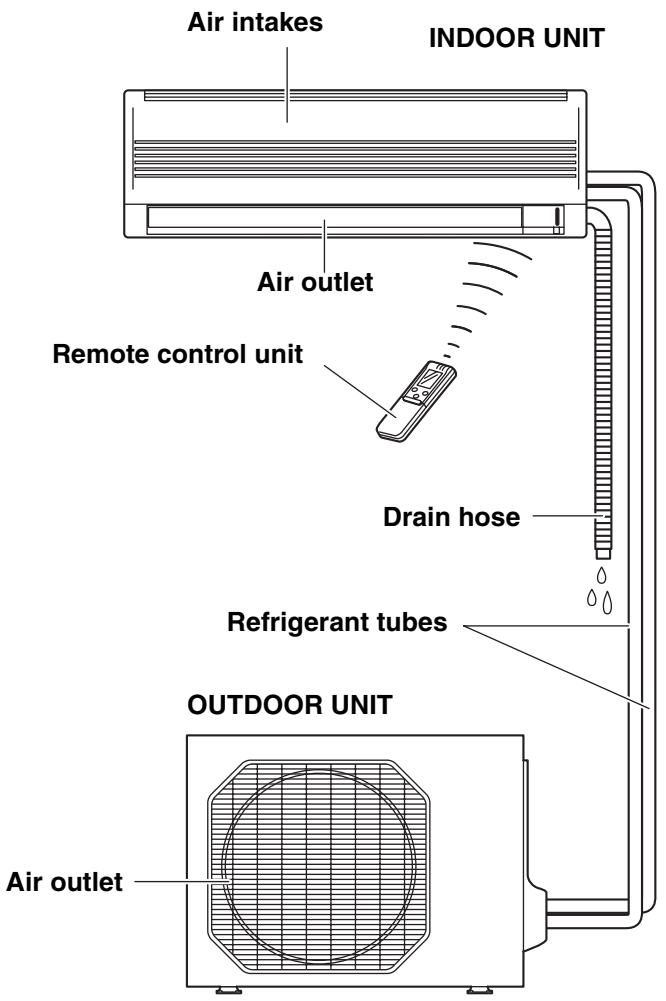
**WARNING**

- **Never use or store gasoline or other flammable vapor or liquid near the air conditioner — it is very dangerous.**
- **This air conditioner has no ventilator for intaking fresh air from outdoors. You must open doors or windows frequently when you use gas or oil heating appliances in the same room, which consume a lot of oxygen from the air. Otherwise there is a risk of suffocation in an extreme case.**

**CAUTION**

- **Do not turn the air conditioner on and off from the power mains switch. Use the ON/OFF operation button.**
- **Do not stick anything into the air outlet of the outdoor unit. This is dangerous because the fan is rotating at high speed.**
- **Do not let children play with the air conditioner.**
- **Do not cool or heat the room too much if babies or invalids are present.**

# Names of Parts






**NOTE** This illustration is based on the external view of a standard model. Consequently, the shape may differ from that of the air conditioner which you have selected.

This air conditioner consists of an indoor unit and an outdoor unit. You can control the air conditioner with the remote control unit.

| | |
|---|---|
| **Air Intake** | Air from the room is drawn into this section and passes through air filters which remove dust. |
| **Air Outlet** | Conditioned air is blown out of the air conditioner through the air outlet. |
| **Remote Control Unit** | The wireless remote control unit controls power ON/OFF, operation mode selection, temperature, fan speed, timer setting, and air sweeping. |
| **Refrigerant Tubes** | The indoor and outdoor units are connected by copper tubes through which refrigerant gas flows. |
| **Drain Hose** | Moisture in the room condenses and drains off through this hose. |
| **Outdoor (Condensing) Unit** | The outdoor unit contains the compressor, fan motor, heat exchanger coil, and other electrical components. |

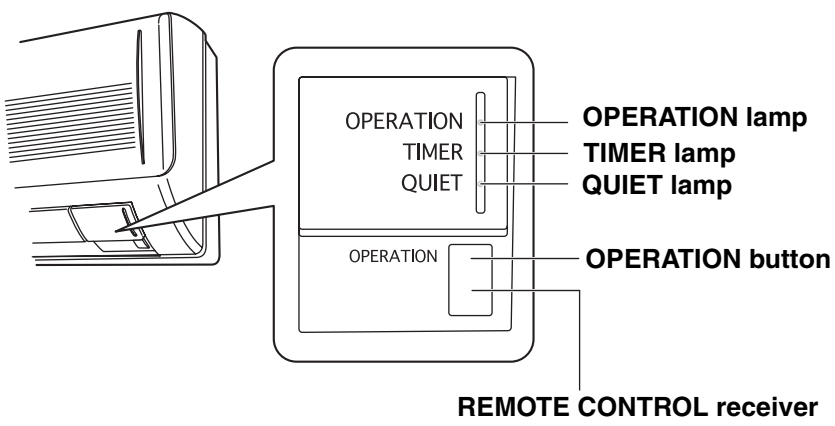
# Unit Display and Operation Button

**IMPORTANT**

**Avoid using radio equipment such as mobile phone near (within 1 m) the remote control receiver. Some radio equipment may cause malfunction of the unit.**

**If the trouble happens, disconnect power and restart the air conditioner after a few minutes.**

**INDOOR UNIT**




| | |
|---|---|
| **REMOTE CONTROL receiver** | This section picks up infrared signals from the remote control unit (transmitter). |
| **OPERATION button** | When the remote control cannot be used, pressing this button enables heating and cooling operation.<br>Each time this button is pressed, the type of operation conducted is indicated by the changing color of the OPERATION lamp. Press the button and select the lamp color that suits your preference for operation.<br>Cooling operation (green) → Heating operation (red) → Stop (lamp off) → Cooling operation (green) |
| **OPERATION lamp** | This lamp lights when the system is in the continuous AUTO (red or green), HEAT (red), DRY (orange), COOL (green) and FAN (green) mode.<br>The OPERATION lamp lights up red and orange alternately when the system is defrosting. |
| **TIMER lamp** | This lamp lights when the system is being controlled by the timer. |
| **QUIET lamp** | This lamp lights during operation in the QUIET mode. |

**NOTE** The unit's display lamps are dimmed during operation in the NIGHT SETBACK mode.

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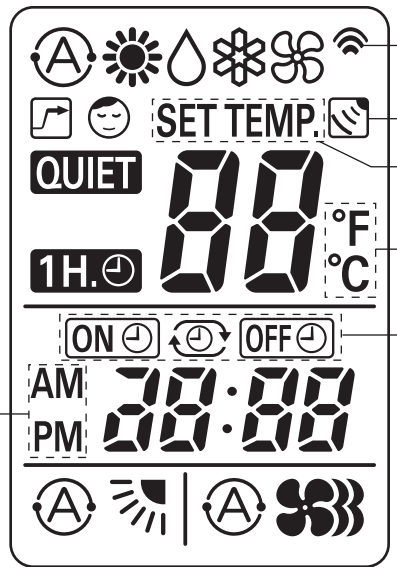
## Remote Control Unit (Display)




**Displayed when transmitting data**

**Displayed when indoor unit sensor is in use**

**Displayed when setting temperature**

**Displayed when temperature is shown**

**Displayed when setting timer**

**Displayed when the time display is set to 12-hour time.**

EG

### Symbols

(1) Operation mode

AUTO .....

HEAT .....

MILD DRY .....

COOL .....

FAN .....

(2) Fan speed

Automatic operation .....

HIGH .....

MEDIUM.....

LOW .....

(3) Temperature setting
16 – 30 °C
When set to 28 °C
temperature indication.....




(4) Timer
24-hour clock with ON/OFF program Timer.....

ON Timer.....

OFF Timer. .....

1-hour OFF Timer.....

(5) NIGHT SETBACK .....

(6) Confirmation of transmission..

(7) Auto. flap indication .....

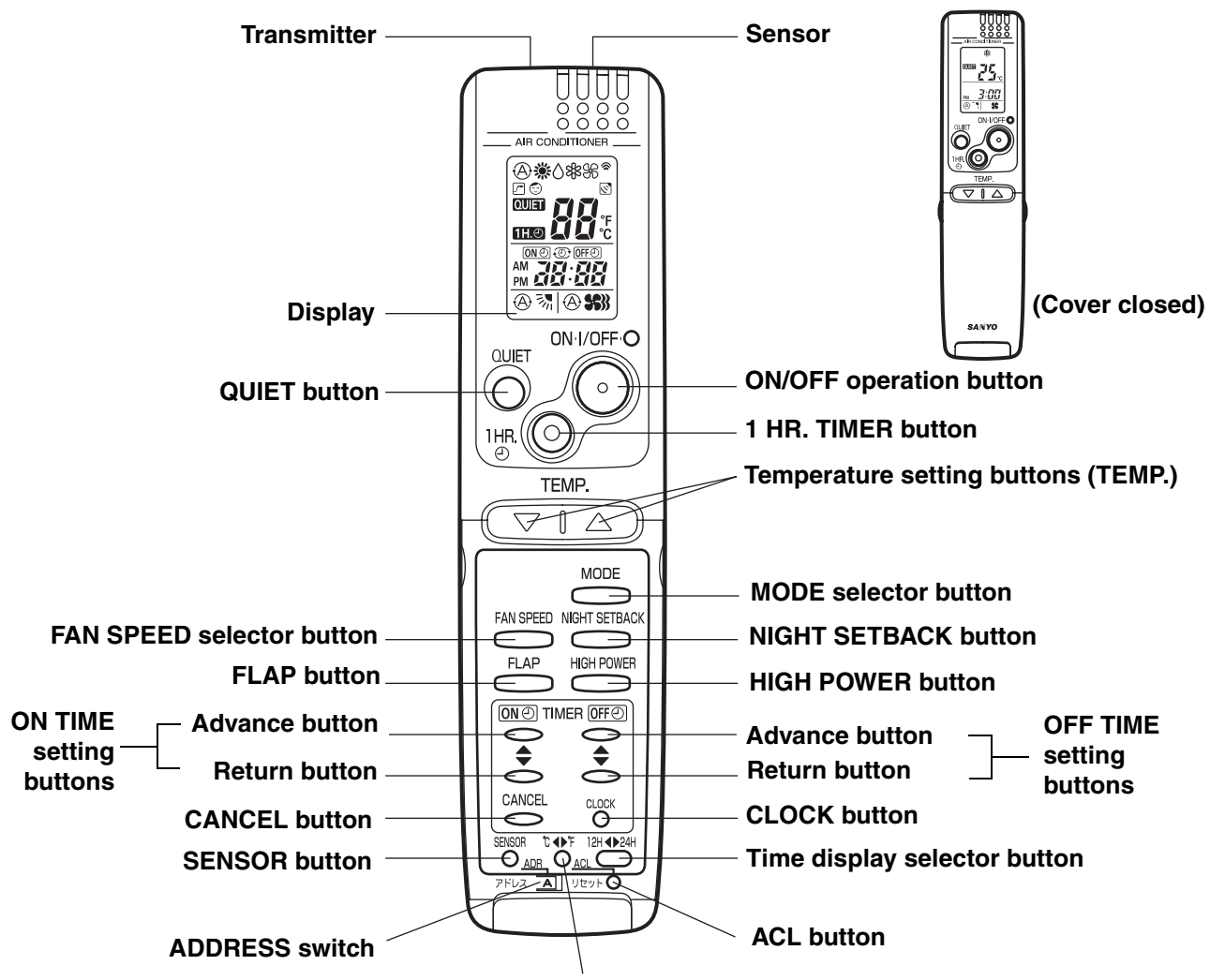
Flap angle indication .....

Sweep indication .....

(8) High power operation .....

(9) Quiet operation.....

# Remote Control Unit

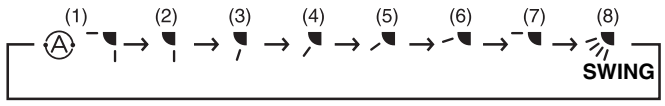



**Temperature display selector button**

**NOTE** The illustration above pictures the remote control unit after the cover has been opened.

| | |
|---|---|
| **Transmitter** | When you press the buttons on the remote control unit, the mark appears in the display to transmit the setting changes to the receiver in the air conditioner. |
| **Sensor** | A temperature sensor inside the remote control unit senses the room temperature. |
| **Display** | Information on the operating conditions is displayed while the remote control unit is switched on. If the unit is turned off, FLAP setting and FAN SPEED setting are not displayed. |
| **QUIET button** | QUIET : When you press this button, the fan rotates slower than the fan speed setting to provide a quieter operating sound. |
| **ON/OFF operation button** | This button is for turning the air conditioner on and off. |
| **1 HR. TIMER button (1-HOUR OFF TIMER)** | 1H. : When you press this button, regardless of whether the unit is operating or stopping, the unit operates for one hour and then shuts down. |

## Remote Control Unit (continued)

| | |
|---|---|
| **Temperature setting buttons (TEMP.)** | Press the ▲ button to increase the set temperature.<br>Press the ▼ button to reduce the set temperature.<br>For details, see Automatic operation and Manual operation. |
| **MODE selector button** | Use this button to select AUTO, HEAT, DRY, COOL or FAN mode. |
| **(AUTO)** | Ⓐ : When this setting is selected, the air conditioner calculates the difference between the thermostat setting and the room temperature and automatically switches to the “COOL” or “HEAT” mode as appropriate. |
| **(HEAT)** | ☼ : The air conditioner makes the room warmer. |
| **(DRY)** | ◇ : The air conditioner reduces the humidity in the room. |
| **(COOL)** | ❄ : The air conditioner makes the room cooler. |
| **(FAN)** | : The air conditioner works only as a circulation fan. |
| **FAN SPEED selector button** | Ⓐ : The air conditioner automatically decides the fan speeds.<br>: High fan speed<br>: Medium fan speed<br>: Low fan speed |
| **NIGHT SETBACK button** | For details, see “5. Night Setback Mode”. When you press this button in the HEAT, DRY or COOL mode, the mark appears in the display, and the remote control unit will automatically adjust the set temperature to save energy. |
| **FLAP button** | Press this button either to select the setting of the airflow direction to the auto. flap in each mode or one of the six possible positions manually or to select the sweep function which moves the flap up and down automatically.<br>Ⓐ : Auto flap setting: If selected in a heating operation, the flap is set to position (3) in the following chart. If selected in a cooling or dry operation, the flap is set at position (7) in the following chart.<br>: The airflow direction can be set manually. (six positions)<br>: The flap moves up and down automatically.<br>**NOTE**<br>When you press the FLAP button, the air flow direction will be changed one by one as follows.<br>  |
| **HIGH POWER button** | : If this button is pressed during HEAT, DRY, COOL or FAN operation, the unit operates at maximum output for 30 minutes, regardless of the desired temperature.<br>The fan speed is 1 step above “High”. |
| **ON TIME/OFF TIME setting buttons** | No display: The timer does not operate.<br>ON : The air conditioner starts at the set time.<br>OFF : The air conditioner stops at the set time.<br>ON OFF : The air conditioner stops and starts, or starts and stops, at the set times every day. For details, see “Setting the Timer”. |

EG

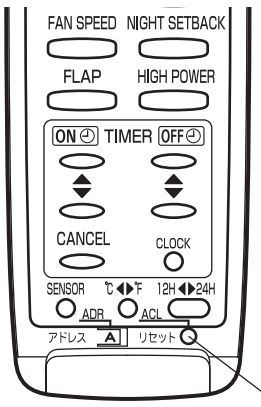
## Remote Control Unit (continued)

| | |
|---|---|
| **SENSOR button** | When you press this button (use a small-tipped object such as a ballpoint pen), the mark will appear at the display. And the room temperature is detected by the sensor which is built into the indoor unit and the air conditioner is controlled accordingly. |
| **NOTE** | If the remote control is located near a heat source, such as a space heater or in direct sunlight, press the SENSOR button to switch to the sensor on the indoor unit. |
| **Temperature Display Selector button** | This switches the temperature display between °C and °F. |
| **Time Display Selector button** | This switches the time display between 24-hour time and 12-hour time. |
| **ACL button (ALL CLEAR)** | Puts the remote control unit into pre-operation status. Always press this button after replacing the batteries. |
| **ADDRESS switch** | • The address switch changes to prevent mixing of signals from remote control units when two air conditioners are installed next to each other. Normally, the address switch is set to A. For more information, please contact the dealer where you made the purchase.<br>• Normally, the tabs on the remote control unit should not be bent. |

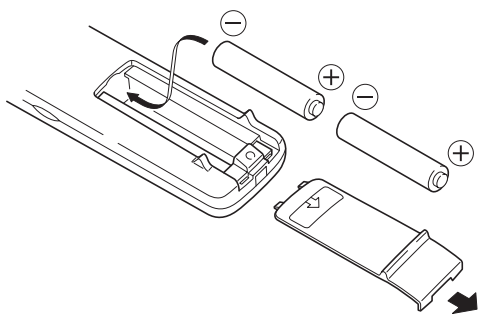
**NOTE** The remote control unit sends the temperature signal to the air conditioner regularly at five minute intervals. If the signal from the remote control unit stops for more than 15 minutes due to the loss of the remote control unit or other trouble, the air conditioner will switch to the temperature sensor which is built into the indoor unit and control the room temperature. In these cases, the temperature around the remote control unit may differ from the temperature detected at the air conditioner's position.

# Using the Remote Control Unit

**How to Install Batteries**




**ACL button**



1. Slide the cover in the direction indicated by the arrow and remove it.
2. Install two AAA alkaline batteries. Make sure the batteries point in the direction marked in the battery compartment.
3. Use a thin object such as the tip of a pen to press the ACL button.

**NOTE**

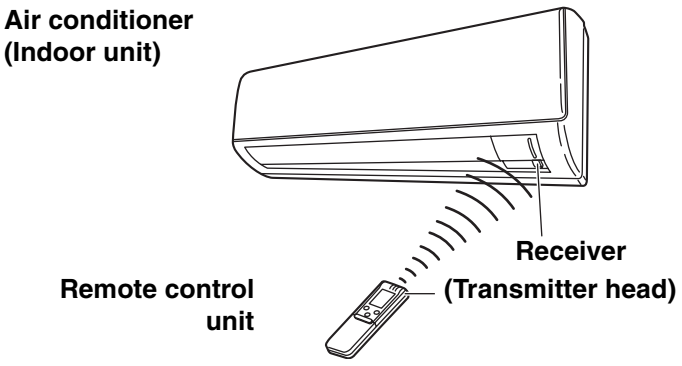
- **The batteries last about six months, depending on how much you use the remote control unit. Replace the batteries when the remote control unit's display fails to light, or when the remote control cannot be used to change the air conditioner's settings.**
- **Use two fresh leak-proof type-AAA alkaline batteries.**
- **In replacing batteries, follow the instructions as mentioned in the sub-section "How to Install Batteries".**
- **If you do not use the remote control unit more than 1 month, take out the batteries.**

# Using the Remote Control Unit (continued)



**How to Use the Remote Control Unit**

When using the remote control unit, always point the unit's transmitter head directly at the air conditioner's receiver.




**Remote Control Unit Installation Position**

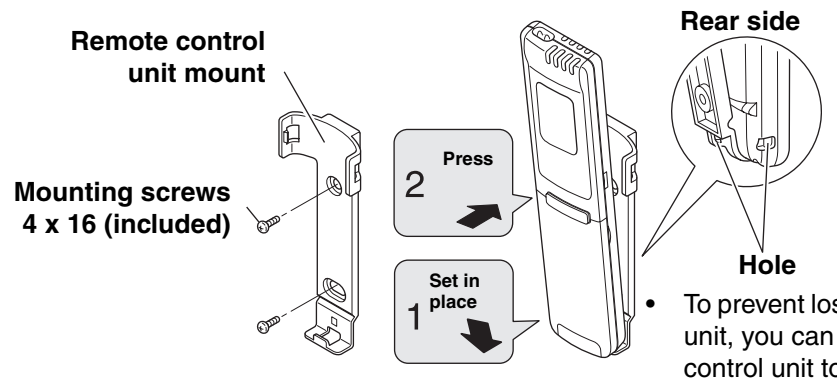
The remote control unit may be operated either from a non-fixed position or from a wall-mounted position. To ensure that the air conditioner operates correctly, DO NOT install the remote control unit in the following places:

**DO NOT**

- In direct sunlight
- Behind a curtain or other places where it is covered
- More than 8 m away from the air conditioner
- In the path of the air conditioner's airstream
- Where it may become extremely hot or cold
- Where it may be subject to electrical or magnetic noise
- Where there is an obstacle between the remote control unit and air conditioner (since a check signal is sent from the remote control unit every 5 minutes)

**Mounting the Remote Control Unit**

Before mounting the remote control unit, press the ON/OFF operation button at the mounting location to make sure that the air conditioner operates from that location. The indoor unit should make a beeping sound to indicate that it has received the signal.




- To prevent loss of the remote control unit, you can connect the remote control unit to the mount by passing a string through the remote control unit and attachment hole.

**To take out the remote control unit, pull it forward.**

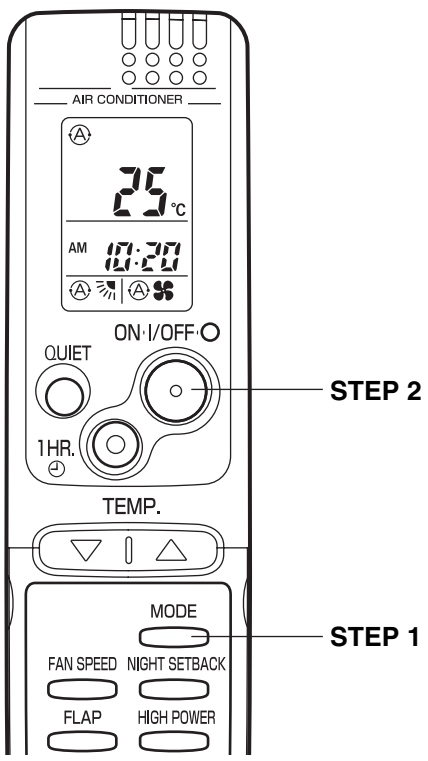
**When Holding the Remote Control Unit**

- When using the remote control unit and during air conditioner operation, the transmitter on the remote control unit should be pointed toward the receiver on the indoor unit.
- Make sure that there are no objects between the remote control unit and receiver which could block the signal.

# Operation with the Remote Control Unit

## 1. Automatic Operation

This unit automatically switches between cooling operation and heating operation according to the difference between the room temperature and the temperature setting.




**NOTE** Check that the circuit breaker on the power panel is turned on.

Once Ⓐ mode is selected and the unit is preset by following the steps below, you can have the air conditioner automatically bring the room to the desired temperature simply by pressing the ON/OFF operation button.

| | |
|---|---|
| **STEP 1** | Press the MODE selector button to Ⓐ. |
| **STEP 2** | Press the ON/OFF operation button. |

To stop the air conditioner, press the ON/OFF operation button again.

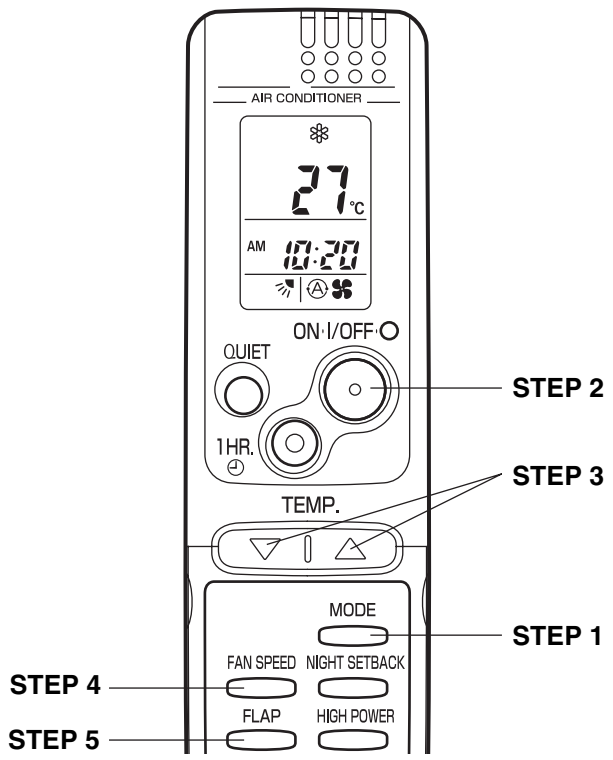
**NOTE**

- To change the temperature setting; press the temperature setting buttons and change the setting to the desired temperature.

# Operation with the Remote Control Unit (continued)



## 2. Manual Operation




**NOTE** Check that the circuit breaker on the power panel is turned on and that the operation selector of the indoor unit is in the ON position.

If the automatic operation settings of the unit do not meet your needs, press the setting buttons as described below and change the settings as desired.

| | |
|---|---|
| **STEP 1** | Press the MODE selector button and select the desired mode.<br>For heating operation → ☼<br>For dehumidifying operation → 💧<br>For cooling operation → ❄<br>For fan only operation → ✣ |
| **STEP 2** | To start the air conditioner, press the ON/OFF operation button. |
| **STEP 3** | Press the TEMP. setting buttons to change the temperature setting to the desired temperature.<br>Adjustable temperature range:<br>30 °C max. or 86 °F max.<br>16 °C min. 60 °F min. |
| **STEP 4** | Set the FAN SPEED selector button to the setting you want. |
| **STEP 5** | Press the FLAP button and set the airflow direction as desired.<br>(Refer to “Adjusting the Airflow Direction” on page 21.) |

To stop the air conditioner, press the ON/OFF operation button again.

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## Operation with the Remote Control Unit (continued)

**NOTE**

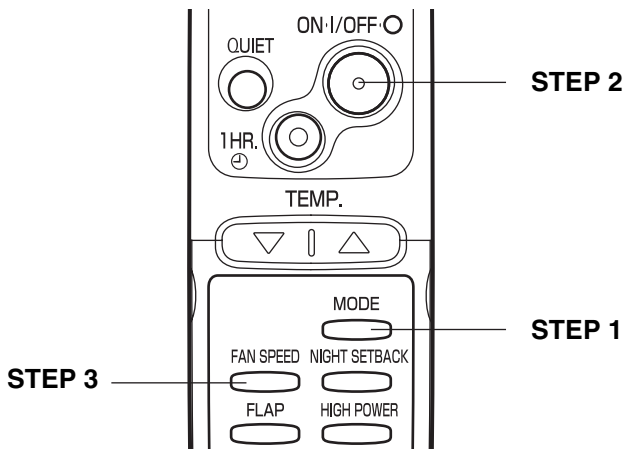
- Choose the best position in the room for the remote control unit, which also acts as the sensor for room comfort and transmits the operating instructions. Once you've found this best position, always keep the remote control unit there.
- This appliance has a built-in 5-minute time delay circuit to ensure reliable operation. When the operation button is pressed, the compressor will start running within three minutes. In the event of power failure, the unit will stop.

### 3. Adjusting the Fan Speed

**A. Automatic fan speed** Simply set the FAN SPEED selector button to the Ⓐ position.
This automatically sets the best fan speed for the room temperature.

**B. Manual fan speed** If you want to adjust fan speed manually during operation, just set the FAN SPEED selector button as desired. [ , , or ]

### 4. Fan Only




If you want to circulate air without any temperature control, follow these steps:

| | |
|---|---|
| **STEP 1** | Press the MODE selector button to switch to the fan mode . |
| **STEP 2** | Press the ON/OFF operation button. |
| **STEP 3** | Press the FAN SPEED selector button to select the fan speed of your choice ( , or ). |

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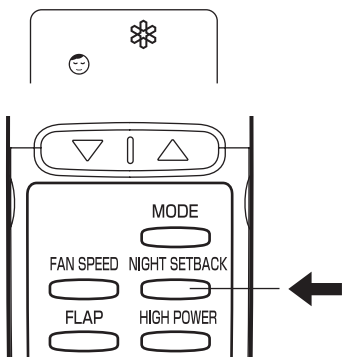
## 5. Night Setback Mode



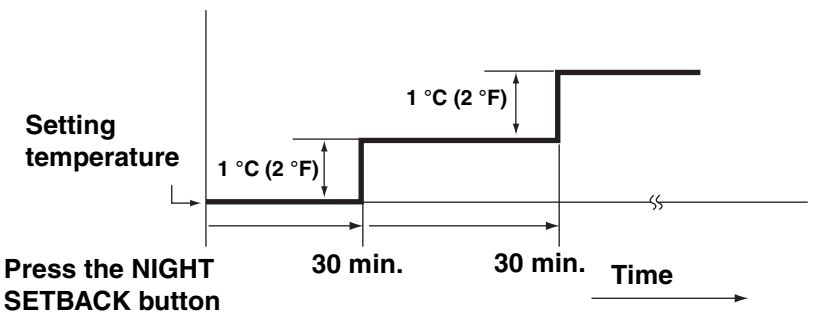

**Night Setback Mode is used for saving energy.**

Press the NIGHT SETBACK button while operation.
The ☾ mark appears in the display.

To release the night setback function, press the NIGHT SETBACK button again.

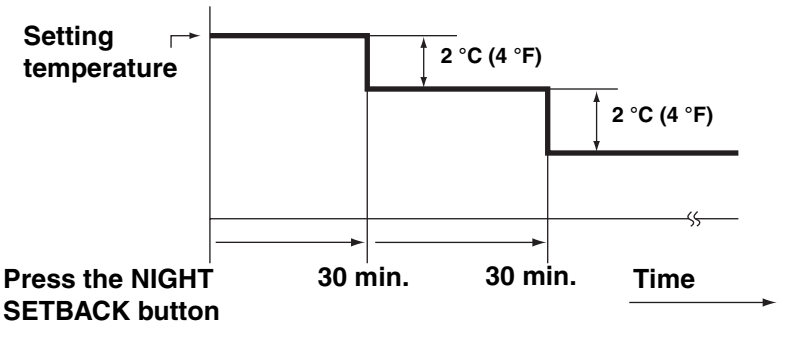
**A. In Cooling and DRY Mode: (❄ and 💧)**

When the night setback mode is selected, the air conditioner automatically raises the temperature setting 1 °C when 30 minutes have passed after the selection was made, and then another 1 °C after another 30 minutes have passed, regardless of the indoor temperature when night setback was selected. This enables you to save energy without sacrificing comfort. This function is convenient when gentle cooling is needed.




**B. In Heating Mode: (☀)**

When the night setback mode is selected, the air conditioner automatically lowers the temperature setting 2 °C when 30 minutes have passed after the selection was made, and then another 2 °C after another 30 minutes have passed, regardless of the indoor temperature when night setback was selected. This enables you to save energy without sacrificing comfort. This function is convenient when gentle heating is needed.



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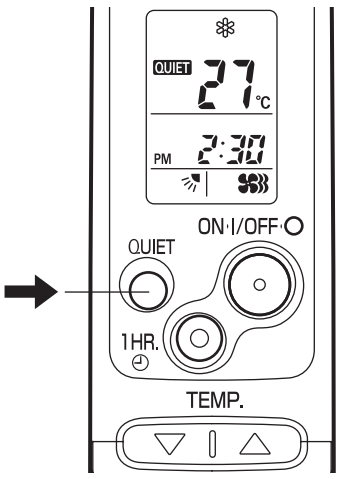
### 6. QUIET Mode



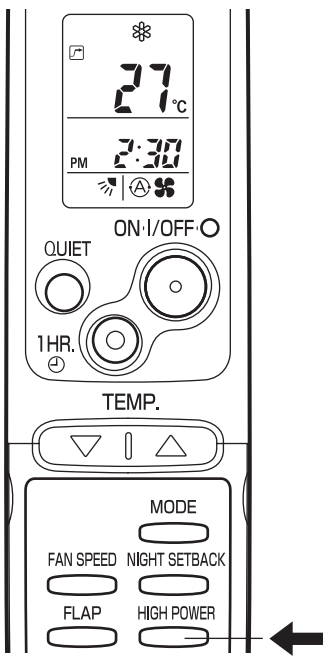

QUIET Mode is used to reduce the fan sound of the indoor unit.

Press the QUIET button.
The QUIET mark appears in the display.

To cancel, press QUIET button again.

- In QUIET Mode, the fan rotates at a slower speed than the fan speed setting.
- If the unit is already operating with a very low (LL) airflow, the fan sound may not change even if the QUIET button is pressed.

### 7. HIGH POWER Mode




HIGH POWER mode can be used to increase the output of the indoor unit for all operation modes except automatic operation.

Press the HIGH POWER button.
The mark appears in the display.

To cancel, press HIGH POWER button again.

- When the HIGH POWER button is pressed, the unit operates at maximum output for 30 minutes, regardless of the desired temperature. The fan speed is 1 step above “High”.
- HIGH POWER Mode cannot be used when the operation mode is Automatic Operation.
- QUIET Mode and HIGH POWER Mode cannot be used at the same time.

**NOTE**

- When set to High fan speed during heating operation, the fan runs at High fan speed even though the mark is displayed.
- Depending on the operating conditions, the fan speed may be increased by a small amount only.

# Special Remarks



## "DRY" ( ) Operation

**How it works?**

- Once the room temperature reaches the level that was set, the unit's operation frequency is changed automatically.
- During DRY operation, the fan speed is automatically runs at lower speed for providing a comfortable breeze.
- "DRY" operation is not possible if the indoor temperature is 15 °C or less.

## Heating ( ) Operation

**Heating performance**

- Because this air conditioner heats a room by drawing in the heat of the outside air (heat pump system), the heating efficiency will fall off when the outdoor temperature is very low. If sufficient heat cannot be obtained with this air conditioner, use another heating appliance together with it.

**Defrosting**

- When the outdoor temperature is low, frost or ice may form on the heat exchanger coil, reducing heating performance. When this happens, a microcomputer defrosting system operates. At the same time, the fan on the indoor unit stops and the OPERATION lamp lights up red and orange alternately until defrosting is completed. Heating operation restarts after several minutes. (This interval will vary slightly depending upon the outdoor temperature and the way in which frost forms.)

**Cold draft prevention**

- For several minutes after the start of heating operation, the indoor fan runs at lower speed until the indoor heat exchanger coil has warmed up sufficiently. However, the fan may remain stopped when the room temperature is low. This is because the COLD DRAFT PREVENTION SYSTEM is operating.

## Power failure during operation

- In the event of power failure, the unit will stop. When the power is resumed, the unit will restart automatically within five minutes by the remote control unit.

## Clicking Sound

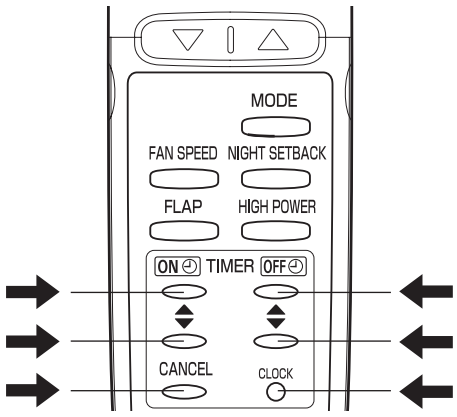
**Clicking sound is heard from the air conditioner**

- In heating or cooling operation, any plastic parts may expand or shrink due to a sudden temperature change. In this event, a clicking sound may occur. This is normal, and the sound will soon disappear.

## Remote Control Unit

- The remote control unit sends the setting condition to the air conditioner regularly at five minute intervals.

# Setting the Timer




**NOTE** In the descriptions below, the following settings are used for the temperature and time indicator selector button on the bottom front section of the remote control.

- Temperature: °C
- Time: AM, PM

## 1. How to set the present time

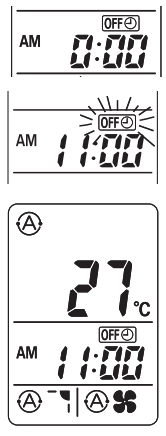
(Example) To set to 10:30 pm.




| Operation | Indication |
|---|---|
| **1.** Press the CLOCK button once if the time indicator is not flashing. | The time indication alone flashes. |
| **2.** Press the Advance, Return (▲, ▼) button until PM 10:30 is displayed. | The time can be set in 1-minute increments. Holding down the button advances the time rapidly in 10-minute increments. |
| **3.** Press the CLOCK button again. | This completes the setting of the current time. |

## 2. How to set the OFF time

(Example) To stop the air conditioner at 11:00 am.

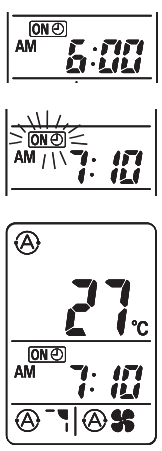



| | |
|---|---|
| **1.** Press the OFF TIME setting button once. | The timer OFF indication is displayed, and the present OFF time is shown. |
| **2.** Press the Advance, Return (▲, ▼) button until AM 11:00 is displayed. | The timer OFF indication blinks. The time can be set in 10-minute increments. Holding down the button advances the time rapidly in 10-minute increments. |
| **3.** Wait a few seconds, and then the setting is complete. | The timer OFF indication stops blinking and the present time is displayed. |

# Setting the Timer (continued)

**3. How to set the ON time**

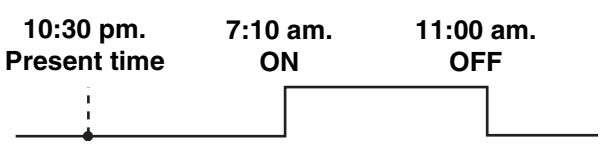
(Example) To start operation at 7:10 am.

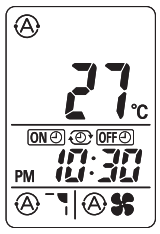



| Operation | Indication |
|---|---|
| **1.** Press the ON TIME setting button once. | The timer ON indication is displayed, and the present ON time is shown. |
| **2.** Press the Advance, Return (▲, ▼) button until AM 7:10 is displayed. | The timer ON indication blinks. The time can be set in 10-minute increments. Holding down the button advances the time rapidly in 10-minute increments. |
| **3.** Wait a few seconds, and then the setting is complete. | The timer ON indication stops blinking and the present time is displayed. |

**4. How to set DAILY ON/OFF REPEAT timer**

(Example) To start operation at 7:10 am. and stop the air conditioner at 11:00 am.




| | |
|---|---|
| **1.** Set the timer ON/OFF times as shown in 2-1, 2, 3 and 3-1, 2, 3. | The present time 10:30 pm. and ON OFF are displayed. |

**NOTE**

- The ON/OFF combination timer uses the current time as the reference, and it is activated starting from whichever set time comes first.
- With the ON/OFF combination timer, the settings are repeated every day.
- You can check the timer ON/OFF times after you have set them by pressing the ON TIME and OFF TIME setting buttons.

**To cancel a timer program**

- Press the CANCEL button.
- When either an ON or OFF timer is to be canceled, press the button corresponding to the timer whose program is to be canceled, and then press the CANCEL button.

**NOTE**

- The airflow direction, fan speed and temperature setting can be changed after a timer program has been set even when the unit is stopped. Even when operation is stopped during an ON timer program, the unit will start operating when the set time is reached provided that the program is not canceled.
- When the ON timer and OFF timer are set to the same time, the timer operates as if it is turned off.

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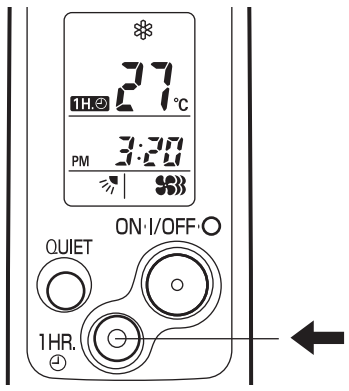
# Using the 1-Hour OFF Timer

**1. 1-Hour OFF Timer**




**This function causes the unit to operate for one hour and then stop, regardless of whether the unit is on or off when this button is pressed.**
The 1H. indicator in the display indicates that this function is operating.

**Setting procedure:**
Regardless of whether the unit is operating or stopped, press the 1 HR. TIMER button.
1H. appears in the display.

**Cancellation procedure:**
Press the ON/OFF operation button to turn the unit off, wait for the unit to stop operating, and then press the ON/OFF operation button again.
The 1-Hour Timer function is now cancelled and the unit operates normally.

**NOTE**

- If, while the 1-Hour Timer function is operating, the 1HR. TIMER button is pressed once to cancel the function and then again, the unit continues to operate for one hour from that point in time and then stops.
- It is not possible to use the OFF Timer and 1-Hour OFF Timer together. Whichever function is set last takes precedence. If the 1 HR. TIMER button is pressed while the TIMER OFF function operates, the OFF Timer is cancelled and the unit will stop operating one hour later.

**2. Operation together with the DAILY ON/OFF REPEAT Timer**

The 1-Hour OFF Timer setting is given priority over the DAILY ON/OFF REPEAT setting.

# Tips for Energy Saving

**Do not**

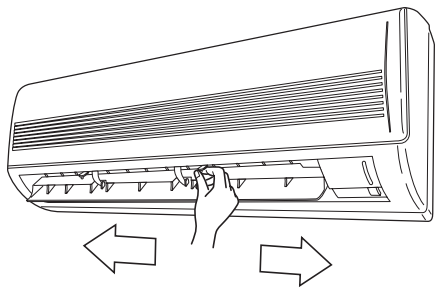
- **Block the air intake and outlet of the unit. If they are obstructed, the unit will not work well, and may be damaged.**
- Let direct sunlight into the room. Use sunshades, blinds or curtains. If the walls and ceiling of the room are warmed by the sun, it will take longer to cool the room.

**Do**

- Always try to keep the air filter clean. (Refer to “Care and Cleaning”.) A clogged filter will impair the performance of the unit.
- To prevent conditioned air from escaping, keep windows, doors and any other openings closed.

# Adjusting the Airflow Direction

**1. Horizontal** The horizontal airflow can be adjusted by moving the vertical vanes with your hands to the left or right.

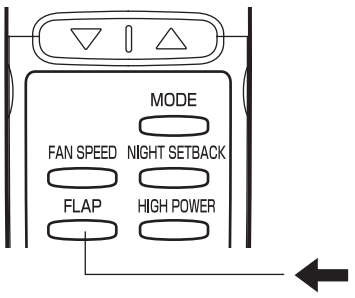


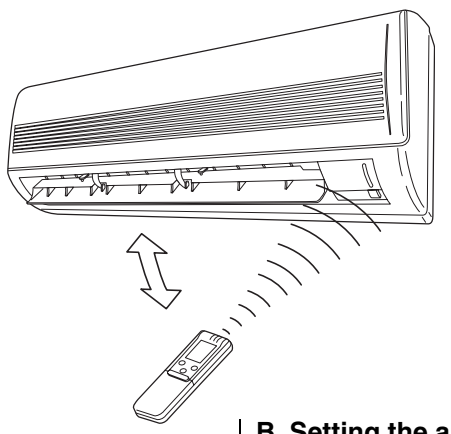


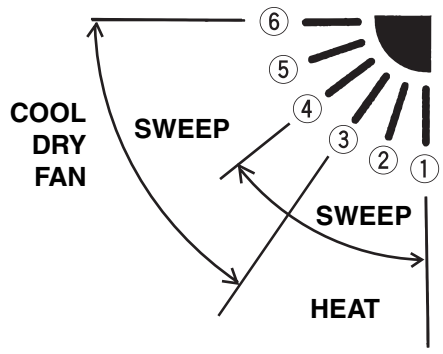
**CAUTION**

**When the humidity is high, the vertical vanes should be in the front position during the cooling or dehumidifying operation. If the vertical vanes are positioned all of the way to the right or left, condensation may begin to form around the air vent and drip down.**

**2. Vertical** The vertical airflow can be adjusted by moving the flap with the remote control unit. Do not move the flap with your hands. Confirm that the remote control unit has been turned on. Use the FLAP button to set either the sweep function or one of the six airflow direction settings.






**A. Sweep function**

The flap starts moving up and down to deliver air over the sweep range.

**C. Auto flap function**

The flap is set to the recommended position.

**B. Setting the airflow manually**

Referring to the above illustration, use the FLAP button to set the airflow direction within the range used during the heating, cooling, or dehumidifying operation.

**NOTE**

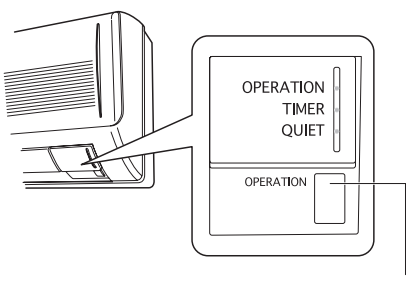
- The flap automatically closes when the unit is off.
- During the heating operation, the fan speed will be very low and the flap will be in the horizontal position (position ⑥) until the air being blown out of the unit begins to warm. Once the air warms up, the flap position and fan speed change to the settings specified with the remote control.

**CAUTION**

- **Use the FLAP button on the remote control to adjust the position of the flap. If you move the flap by hand, the flap position according to the remote control and the actual flap position may no longer match. If this should happen, shut off the unit, wait for the flap to close, and then turn on the unit again; the flap position will now be normal again.**
- **Do not have the flap pointed down during cooling operation. Condensation may begin to form around the air vent and drip down.**

# Operation without the Remote Control Unit

**INDOOR UNIT**




**OPERATION button**

If you have lost the remote control unit or it has trouble, follow the steps below.

**When the air conditioner is not running**
Each time the OPERATION button is pressed, the type of operation conducted is indicated by the changing color of the OPERATION lamp. Press the button and select the lamp color that suits your preference for operation.

Cooling operation (green) → Heating operation (red) → Stop (lamp off)

**NOTE** The temperature is set to the room temperature minus 2°C during the cooling operation and to the room temperature plus 2°C during the heating operation, and the fan speed and flap are set to Auto.

# Care and Cleaning

**WARNING**

1. **For safety, be sure to turn the air conditioner off and also to disconnect the power before cleaning.**
2. **Do not pour water on the indoor unit to clean it. This will damage the internal components and cause an electric shock hazard.**

**Casing and Grille (Indoor Unit)**

Clean the casing and grille of the indoor unit with a vacuum cleaner brush, or wipe them with a clean, soft cloth.

If these parts are stained, use a clean cloth moistened with a mild liquid detergent. When cleaning the grille, be careful not to force the vanes out of place.

**CAUTION**

1. **Never use solvents, or harsh chemicals when cleaning the indoor unit. Do not wipe the plastic casing using very hot water.**
2. **Some metal edges and the fins are sharp and may cause injury if handled improperly; be especially careful when you clean these parts.**
3. **The internal coil and other components of the outdoor unit must be cleaned every year. Consult your dealer or service center.**

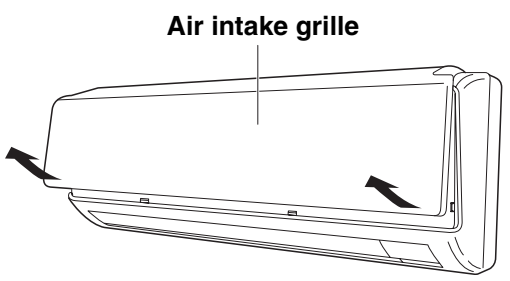
# Care and Cleaning (continued)

**Anti-Mold Filter**

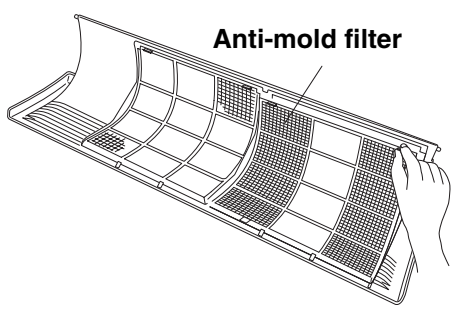
The anti-mold filter behind the air intake grille should be checked and cleaned at least once every two weeks.

**How to remove the anti-mold filter**

**1.** Grasp both ends of the air intake grille, and remove it by opening towards the front and pulling towards you.




**2.** Remove the anti-mold filter attached to the rear of the air intake grille.

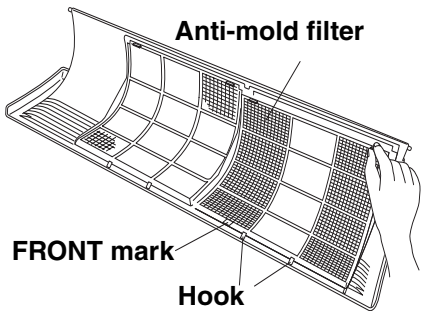



**Cleaning**

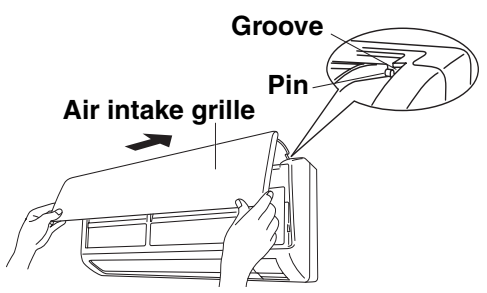
Use a vacuum cleaner to remove light dust. If there is sticky dust on the filter, wash the filter in lukewarm, soapy water, rinse it in clean water, and dry it.

**How to replace the anti-mold filter**

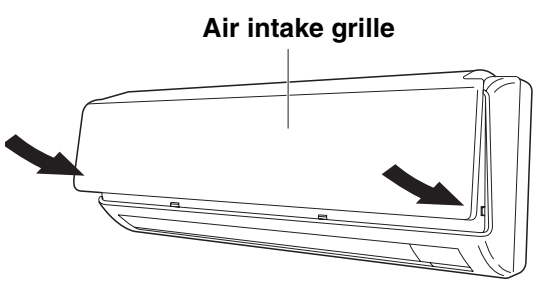
**1.** With the FRONT mark of the anti-mold filter at the front, align the two indentions near the mark with the hooks at the rear of the air intake grille, and then mount the anti-mold filter.




**2.** Allow the edge of the air intake grille to slide into the top of the indoor unit, and then insert it all the way inside.




**3.** Press in the bottom right and left corners of the air intake grille to attach the indoor unit.




**NOTE** Attach so that the round pins at the top right and left corners of the air intake grille are inserted into the grooves at the top right and left of the indoor unit.

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# Care and Cleaning (continued)

**Air Clean Filter**

The air clean filter removes dust and dirt from the air, and reduces odors and smoke from tobacco.

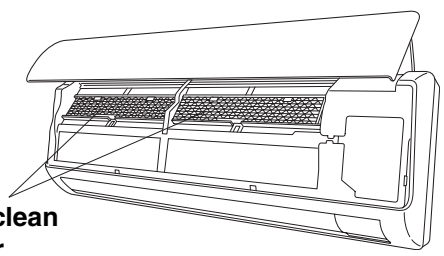
**WARNING**

**This air clean filter cannot remove harmful gases or vapors nor ventilate air in the room. You must open doors or windows frequently when you use gas or oil heating appliances. Otherwise there is a risk of suffocation in extreme cases.**

**How to install the air clean filter**

The air clean filter needs to be installed behind the air intake grille.

1. Remove the air intake grille.
2. Install the air clean filter in the position shown in the figure.
3. Remount the air intake grille.



**Air clean filter**

**NOTE**

- In general, the filter should be replaced once every three months.
- Dirty air clean filters cannot be washed and reused. Purchase a replacement filter at your local dealer.

**Cleaning the main unit and remote control unit**

- Wipe clean using a soft, dry cloth.
- To remove stubborn dirt, moisten a cloth in warm water no hotter than 40 °C, wring thoroughly, and then wipe.
- The air intake grille can be removed in order to wash it with water.

**Removing and remounting the air intake grille**

Refer to “How to remove the anti-mold filter” and “How to replace the anti-mold filter” on page 23.

**CAUTION**

**When using a footstool or the like, be careful not to let it tip over.**

**Washing the grille with water**

- Clean the grille gently using a soft sponge, or the like. Then wipe away any remaining moisture.
- Neutral detergent may be used to remove stubborn dirt. Then rinse thoroughly with water and wipe away any remaining moisture.

# Troubleshooting

If your air conditioner does not work properly, first check the following points before requesting service. If it still does not work properly, contact your dealer or service center.

| Trouble | Possible Cause | Remedy |
|---|---|---|
| Air conditioner does not run at all. | 1. Power failure.<br>2. Leakage circuit breaker tripped.<br>3. Line voltage is too low.<br>4. Batteries in remote control unit have run down. | 1. Restore power.<br>2. Contact service center.<br>3. Consult your electrician or dealer.<br>4. Replace batteries. |
| OPERATION lamp blinks and air conditioner does not operate. | Trouble in system. | Contact service center. |
| Compressor runs but soon stops. | Obstruction in front of condenser coil. | Remove obstruction. |
| Poor cooling (or heating) performance. | 1. Dirty or clogged air filter.<br>2. Heat source or many people in room.<br>3. Doors and/or windows are open.<br>4. Obstacle near air intake or air discharge port.<br>5. Thermostat is set too high for cooling (or too low for heating).<br>6. (Outdoor temperature is too low for heating.) | 1. Clean air filter to improve airflow.<br>2. Eliminate heat source if possible.<br>3. Shut them to keep the heat (or cold) out.<br>4. Remove it to ensure good airflow.<br>5. Set the temperature lower (or higher).<br>6. (Consult your dealer or try to use another heat appliance.) |
| Clicking sound is heard from the air conditioner. | In heating or cooling operation, any plastic parts may expand or shrink due to a sudden temperature change. In this event, a clicking sound may occur. | This is normal, and the sound will soon disappear. |
| OPERATION lamp lights but outdoor unit will not run. | 1. The use of cellular phones near the air conditioner may cause disturbance to its normal operation. | 1. Turn off the power then restart the air conditioner after a while.<br>2. Consult your dealer. |

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# Operating Range

The air conditioner is operable within the temperature ranges as listed below:

| | Temperature | Indoor air temperature | Outdoor air temperature |
|---|---|---|---|
| COOLING | Max. | 32 °C DB / 23 °C WB | 43 °C DB |
| | Min. | 19 °C DB / 14 °C WB | 19 °C DB |
| HEATING | Max. | 27 °C DB | 24 °C DB / 18 °C WB |
| | Min. | 16 °C DB | –8 °C DB/ –9 °C WB |